(FILE 'HOME' ENTERED AT 11:01:05 ON 24 AUG 2004)

FILE 'CAPLUS' ENTERED AT 11:01:20 ON 24 AUG 2004
L1 1 S CAPLILLARY (3W) ELECTROPHOR?
L2 20227 S CAPILLARY (3W) ELECTROPHOR?
L3 579728 S COPOLYMER#
L4 207 S L2 AND L3
L5 45855 S ACRYLAMIDE
L6 57 S L4 AND L5

=> d 16 26 28 29 33 35 36 37 39 bib ab

L6 ANSWER 26 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:677773 CAPLUS
DN 131:351951
TI Separation of **copolymers** of variable compositions by **capillary** zone **electrophoresis**
AU Peric, Ivan M.; Rivas, Bernabe L.; Pooley, Amalia; Riffo, Elizardo; Basaez, Luis A.
CS Departamento Quimica Analitica Inorganica, Universidad Concepcion, Concepcion, Chile
SO Boletin de la Sociedad Chilena de Quimica (1999), 44(3), 345-350
CODEN: BOCQAX; ISSN: 0366-1644
PB Sociedad Chilena de Quimica
DT Journal
LA English
AB **Capillary** zone **electrophoresis** (CZE) anal. of several **copolymers** obtained by racial copolymn. of **acrylamide** and N,N'-dimethylacrylamide using acrylic acid and 1-vinyl-2-pyrrolidone as comonomers under different feed molar ratios had been carried out. Results demonstrate that absolute value of the electrophoretic mobility is strongly dependent of the linear charge d. of the **copolymer** in agreement with the Manning's counterion condensation theory. Analyses were performed in under 15 min using a phosphate or borate buffer.
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 28 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:129002 CAPLUS
DN 130:277394
TI Separation of oligonucleotides and DNA fragments by **capillary electrophoresis** in dynamically and permanently coated capillaries, using a **copolymer** of **acrylamide** and β-D-glucopyranoside as a new low viscosity matrix with high sieving capacity
AU Chiari, Marcella; Damin, Francesco; Melis, Alessandra; Consonni, Roberto
CS Institute Biocalysis Molecular Recognition, Milan, I-20131, Italy
SO Electrophoresis (1998), 19(18), 3154-3159
CODEN: ELCTDN; ISSN: 0173-0835
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB New **copolymers** of **acrylamide** and β-D-glucopyranoside were synthesized and characterized. The different reactivity of the 2 monomers towards radical polymerization meant the authors could control the growth of the polymer chains whose length was inversely related to the number of glucose residues incorporated in the **copolymers**. The properties of these polymers were investigated in the separation of oligonucleotides and double-stranded DNA by **capillary electrophoresis** (CE) in coated and uncoated capillaries. The new **copolymers** were a suitable matrix for CE due to their high-resolving capacity and low viscosity. The authors also looked into

the advantages of a new method of dynamic suppression of electroosmotic flow based on the addition of small amts. (0.03-0.05%) of dimethylacrylamide to the sieving and to the running buffer. A complete test was run on the reproducibility and efficiency of sepns. carried out in a permanently and dynamically coated capillary, and the advantages and disadvantages of the 2 methods were compared.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 29 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:612980 CAPLUS
DN 129:325525
TI **Capillary electrophoresis** with linear polymers containing hydrophobic groups for the separation of small molecules
AU Sawada, Hirokazu; Jinno, Kiyokatsu
CS School Materials Sci., Toyohashi Univ. Technology, Toyohashi, 441-8580, Japan
SO Chromatography (1998), 19(2), 158-159
CODEN: CHROFZ; ISSN: 1342-8284
PB Society for Chromatographic Sciences
DT Journal
LA Japanese
AB **Capillary electrophoretic** separation using linear polymers containing hydrophobic groups was studied. First, **copolymers** consisting of the water-soluble monomers, **acrylamide** (AAm) and N-isopropylacrylamide (IPAAm) were prepared in buffer solution and were applied to the CE separation of small charged mols. The effects of the hydrophobic groups in the linear polymer on the CE separation were studied. To extend the alkyl chain length (and to increase the hydrophobic selectivity), linear polymers containing more hydrophobic groups (tert-Bu or octadecyl) were prepared
The migration behavior of small mols. using the **copolymers** containing hydrophobic groups was different from that in a free solution or in polyacrylamide (PAAm) solution As the next step, the authors prepared capillaries coated with linear polymer containing hydrophobic and charged groups, and the columns were applied to electrochromatog. separation of small mols.

L6 ANSWER 33 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:416549 CAPLUS
DN 129:117246
TI **Capillary electrophoresis** with linear polymers containing hydrophobic groups for the separation of small molecules
AU Sawada, Hirokazu
CS School of Materials Science, Toyohashi University of Technology, Toyohashi, 441-8580, Japan
SO Analyst (Cambridge, United Kingdom) (1998), 123(7), 1471-1476
CODEN: ANALAO; ISSN: 0003-2654
PB Royal Society of Chemistry
DT Journal
LA English
AB The **capillary electrophoretic** separation of small charged mols. using linear (noncross-linked) polymers containing hydrophobic groups was studied. First, various compns. of linear **copolymers**, consisting of the water-soluble monomers, **acrylamide** and N-isopropylacrylamide (IPAAm), were prepared in a running buffer solution, the effects of alkyl group content in the **copolymer** chain on the separation of small mols. were studied. To increase the hydrophobic selectivity, linear **copolymers** containing more hydrophobic groups (tert-Bu or n-octadecyl) were prepared in methanol as the next step, and were applied to **capillary electrophoretic** sepns. after purification The migration behavior of small mols. in solns. of the **copolymers** containing hydrophobic groups was different from the separation

in a free solution or in polyacrylamide solution Sepns. with linear polymers containing hydrophobic groups can be achieved from the differences in the electrophoretic mobilities and the hydrophobicities of the solutes.
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 35 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:799591 CAPLUS
DN 128:132817
TI **Capillary electrophoretic** separation of small molecules using non-crosslinked polymers with hydrophobic ligands
AU Sawada, hirokazu; Jinno, Kiyokatsu
CS School Materials Science, Toyohashi University Technology, Toyohashi, 441, Japan
SO Chromatography (1997), 18(4), 318-319
CODEN: CHROFZ; ISSN: 1342-8284
PB Society for Chromatographic Sciences
DT Journal
LA Japanese
AB **Capillary electrophoretic** separation of structurally similar small solutes with noncrosslinked **copolymer** solns. consisting of **acrylamide** (AA) and N-alkyl substituted **acrylamide** such as N-isopropylacrylamide (IPAAm) was studied. Some dansylated amino acids were separated on AA-polymer filled columns and on AA-IPAAm-**copolymer** filled columns under the condition of fully eliminating the contribution of electroosmotic flow (EOF). The effects of the alkyl groups in the polymer chains on the separation of the small mols. were studied by comparing these two polymer-filled columns. The result of the sepns. will be presented.

L6 ANSWER 36 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:784405 CAPLUS
DN 128:43162
TI **Capillary electrophoretic** separation of structurally similar solutes in noncross-linked poly(**acrylamide** -co-N-isopropylacrylamide) solution
AU Sawada, Hirokazu; Jinno, Kiyokatsu
CS School Materials Science, Toyohashi University Technology, Toyohashi, 441, Japan
SO Electrophoresis (1997), 18(11), 2030-2035
CODEN: ELCTDN; ISSN: 0173-0835
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB Noncross-linked **acrylamide** (AA)-N-isopropylacrylamide (IPAAm) **copolymers** were used as a buffer additive in **capillary electrophoretic** separation of structurally similar small solutes. Seven kinds of barbiturates and five kinds of dansylated (Dns) amino acids, which have different hydrophobic side chains, were separated on poly(AA-co-IPAAm)-filled columns and on AA polymer-filled columns under the condition of totally eliminating the contribution of electroosmotic flow (EOF). It is known that the **copolymer** containing IPAAm has thermosensitive properties, and the hydrophobicity of its surface changes with surrounding temperature In this investigation, therefore, the effects of an iso-Pr group in the **copolymer** on the electrophoretic separation of the small solutes were studied by comparing the two polymer-filled columns at ambient temperature and at elevated temperature Although slight differences in migration behavior were observed at ambient temperature between the columns filled with these two polymer solns., obvious differences in the separation of the solutes were observed at elevated temperature The observed changes on the migration

behavior might be caused by the interaction between **copolymer** chains exhibiting hydrophobic property and the solute.

L6 ANSWER 37 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:259129 CAPLUS
DN 126:305939
TI Separation of polyelectrolytes of variable compositions by free-zone **capillary electrophoresis**
AU Gao, Jeff Y.; Dubin, Paul L.; Sato, Takeshi; Morishima, Yotaro
CS Department of Chemistry, Indiana University - Purdue University at Indianapolis, Indianapolis IN 46202, USA
SO Journal of Chromatography, A (1997), 766(1 + 2), 233-236
CODEN: JCRAEY; ISSN: 0021-9673
PB Elsevier
DT Journal
LA English
AB **Capillary electrophoresis** (CE) of a series of random **copolymers** of the ionic monomer, sodium 2-acrylamido-2-methylpropanesulfonate (AMPS), and the nonionic monomer, **acrylamide**, was carried out. The absolute value of the electrophoretic mobility μE increases as expected with AMPS content. However, μE clearly shows a discontinuity when the reduced polymer linear charge d., ξ, becomes unity. This phenomenon is a confirmation of Manning's counterion condensation theory. Free-zone CE can be used to sep. and characterize charged **copolymers** below ξ = 1.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 39 OF 57 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:166900 CAPLUS
DN 126:260184
TI Analysis of toxic drug by **capillary electrophoresis** using polyacrylamide-coated columns
AU Jinno, Kiyokatsu; Han, Yinghong; Sawada, Hirokazu
CS Sch. Materials Sci., Toyohashi Univ. Technol., Toyohashi, 441, Japan
SO Electrophoresis (1997), 18(2), 284-286
CODEN: ELCTDN; ISSN: 0173-0835
PB VCH
DT Journal
LA English
AB Toxic drugs, including barbiturates and benzodiazepines, were analyzed using polyacrylamide-coated columns in **capillary electrophoresis** (CE). The sepns. were carried out in absence of electro-osmotic flow. Seven kinds of barbiturates were successfully separated with the coated columns in free solution without further additives. Benzodiazepines, the elec. neutral solutes, were introduced onto the coated column, and separated in presence of SDS above its critical micelle concentration in the running buffer. This CE method offered fast and efficient separation of more hydrophobic solutes, such as benzodiazepines. The separation of seven barbiturates was studied in linear (noncross-linked) polyacrylamide solns. and in **acrylamide**/N-isorpropylacrylamide (AA/IPAA) **copolymer** solns. to explore the effect of iso-Pr groups in the AA/IPAA **copolymer** chain.

=>